

MONTHLY WEATHER REVIEW,

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(General Weather Service of the United States.)

WAR DEPARTMENT,

Office of the Chief Signal Officer,

DIVISION OF

TELEGRAMS AND REPORTS FOR THE BENEFIT OF COMMERCE AND AGRICULTURE.

INTRODUCTION.

In preparing this REVIEW the following data, received up to March 20th, have been used, viz: the regular tri-daily weather charts, containing the data of simultaneous observations taken at 136 Signal Service stations and 15 Canadian stations, as telegraphed to this office; 182 monthly journals and 180 monthly means from the former, and 15 monthly means from the latter; reports from 5 Sunset stations; 240 monthly registers from Voluntary Observers; 56 monthly registers from United States Army Post Surgeons; Marine Records; International Simultaneous Observations; monthly reports from Voluntary Observers in, and the local Weather Services of, Iowa and Missouri, and of the Central Pacific Railway Co.; reliable newspaper extracts; special reports.

BAROMETRIC PRESSURE.

The mean pressure of the air over the United States and Canada, for the month of *February*, 1881, is shown by isobars on Chart No. II. The eastward movement of the area of high barometer (noted in the last month's REVIEW) has been still more marked during the present month, the region of maximum pressures having been transferred from the Mississippi valley to the Atlantic States, while the area of lowest barometer occupies the region covered by the maximum pressures of December, 1880. A glance at the chart at once reveals the effect of this redistribution of pressure upon the prevailing direction of the wind in the Gulf States, Tennessee, the Ohio valley and Lake region. On the Pacific coast, the highest pressures are over California, and the northerly winds along the coast would seem to indicate that the region of maximum barometer is over the ocean.

Departures from the Normal Values for the Month.—The region of greatest departure from the normal covers northeastern New York, Vermont and New Hampshire, being $+0.15$ at Albany and Mt. Washington and $+0.16$ at Burlington; along the New England coast it averages about $+0.13$, while the line of $+0.10$ runs from Cape May northwestward to Lake Superior. From this line of $+0.10$, in a southwesterly direction, it gradually decreases towards the line of no departure, which runs through Florida, Georgia, northern Alabama, Tennessee and Missouri. At Indianola the departure is -0.06 and at New Orleans -0.03 . On the Pacific coast and in the Rocky Mountain region the departures are zero or quite small.

Barometric Ranges.—The range of pressure during the month has varied in the extremes from 0.36 inch at Key West to 1.72 inches at Burlington, Vt. Ranges of 1.00 and above were reported from stations in Washington Territory, Montana and Dakota, thence southward to Brownsville, Tex., and northeastward over the remaining sections of the country to the Atlantic coast, (except the East Gulf States,) with but the variance of a single station, viz.: Little Rock, Ark., 0.96. Throughout the territory included between the parallels of 30° and 47° and west of the 102nd meridian, the range varies from 0.32 at San Diego to 0.95 at Umatilla. Along both the Atlantic and Pacific coasts, the range increases with the latitude; along the southern boundary of the United States, the range increases quite rapidly from both California and Florida inward to the maximum in lower Texas. The smallest ranges occur at the southern stations—Key West and San Diego; the largest in the Upper Lake region and New England.